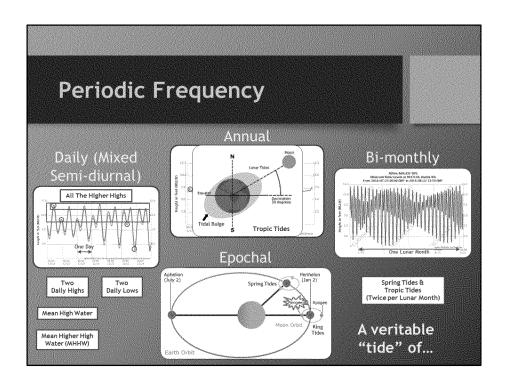
## HTL = High Tide Line Promulgated by Corps in 1977 Landward Extent of Clean Water Act Jurisdiction in Tidally Influenced WOTUS\* Regulatory Definition: Maximum height reached by a rising tide Encompasses Spring high tides & Other high tides that occur with periodic frequency But not storm surges or other departures from the predicted reach of the tide Intent (from the Preamble): Many types of aquatic areas along the coast are mean higher high water mark (MHHM) HTL includes those "inundated with sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be sufficient frequency & regularity to be included as part of the sufficient frequency & regularity to be sufficient frequency

The Corps had a regulatory program long before passage of the CWA in 1972

Don't need to go into all the details; suffice it to say, that program applied only to MHHW

When the Corps found out from the Courts that CWA was much broader than the old program's, they had to come up with another jurisdictional limit



## **DAILY**

MHHW is the average of the daily higher high water levels

## **BI-MONTHLY**

Tropic tides (maximum & minimum lunar declination); every 13.75 days Spring tides (Earth, sun, & moon aligned (new & full moon)); every 14.77 days

MONTHLY: Perigean (moon closest to Earth); very 27.55 days (lunar month)

SEASONAL: King (Perigean + spring): 3 or 4 times a year

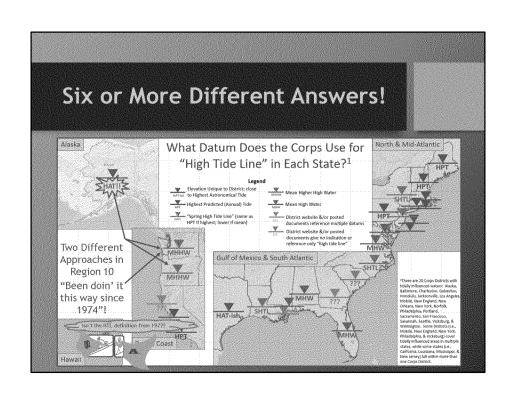
ANNUAL: higher in winter (closer to the Sun; graphic doesn't show correctly)

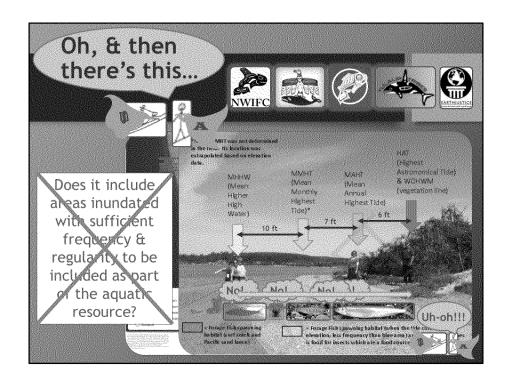
## **EPOCHAL**

- Encompasses the full cycle of the lunar & solar influences on tides resulting from the various angles between orbital planes, equator & axis (37 tidal constituents)
- Cycle apparent on the graph
- HAT is the highest predicted tide during the NTDE
- Current NTDE is 1983-2001; considered for revision every 20-25 years (except parts of AK & Gulf Coast)

All these highs tides lead to...

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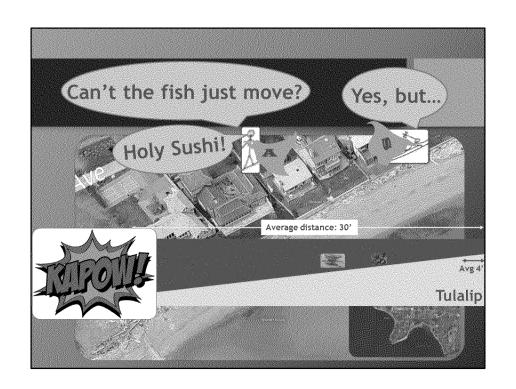


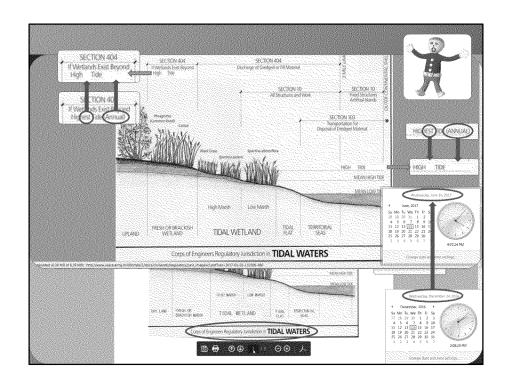
Have been working on this issue for years, but recent interest by entities outside the agencies

In particular, Earth Justice Petition & TRAR, funneled through NWIFC

Many reasons to care, but juvenile salmon & forage fish such as surf smelt & Pacific sand lance are among the biggest.

Predator refuge & spawning habitat





Ex. 5 - Deliberative Process



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